A new species of *Epinotia* Hübner, 1825 ("1816") from southwestern Bulgaria (Tortricidae: Olethreutinae)

Yuriy I. Budashkin[1] & Boyan Zlatkov[2]

[1] Karadagh Nature Reserve, Ukrainian Academy of Sciences, Kurortnoye, Feodosia, Crimea, 98188, Ukraine; budashkin@ukr.net

[2] Sofia University "St. Kliment Ohridski", Faculty of Biology, Dept. of Zoology and Anthropology, 8 Dragan Tsankov Blvd., 1164 Sofia, Bulgaria; bzlatkov@gmail.com

Abstract. *Epinotia nigristriana* **sp. n.** is described from the male holotype and a female paratype collected at two neighbouring localities in the Struma River valley of southwestern Bulgaria in October 2008. Adults together with male and female genitalia are illustrated.

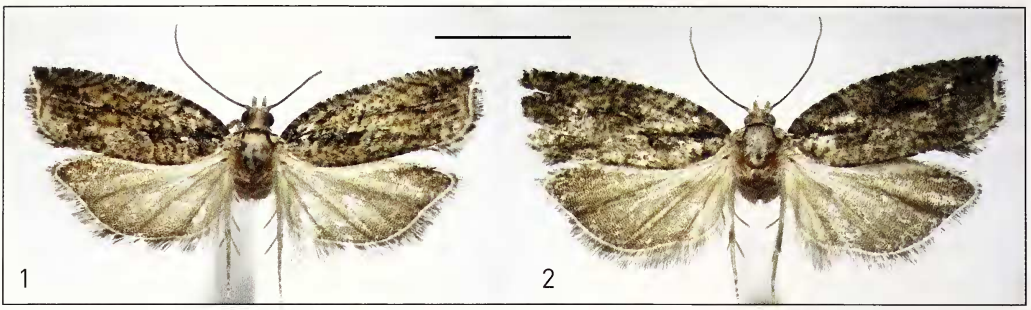
Introduction

The genus *Epinotia* Hübner, 1825 ("1816") (Tortricidae: Olethreutinae: Eucosmini) has a worldwide distribution and includes 172 described species (Brown 2005), with approximately 100 of them in the Palaearctic region and 40 in Europe (Razowski 2003). Most are univoltine and overwinter in the larval or egg stage, with adults present in summer or autumn. The larvae of most feed on buds, spun leaves or branches of arboreal plants (Kuznetzov 1978). The genus has been subdivided into several subgenera by various authors (e.g., Bradley et al. 1979, Kuznetzov 1978), but most recently, Razowski (1989) disregarded the subgeneric classification.

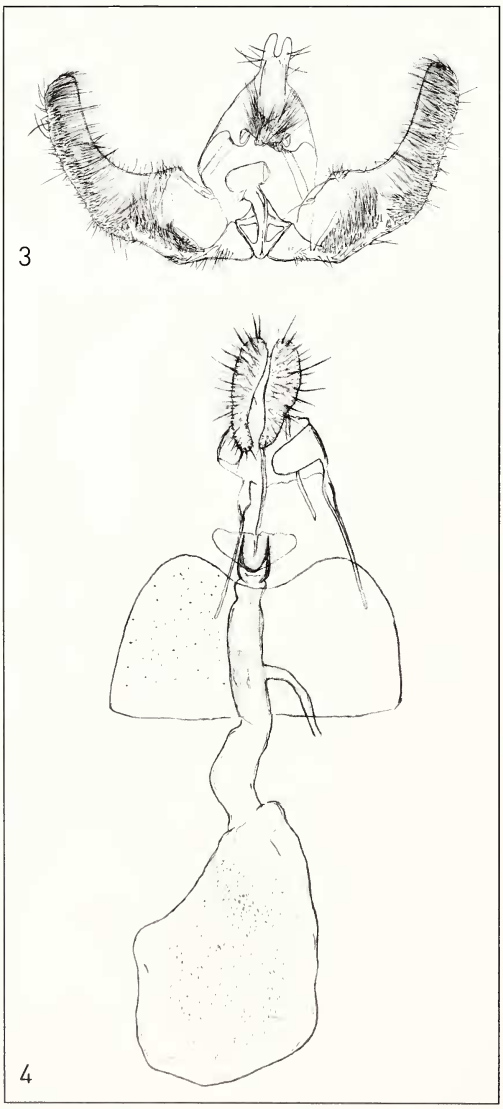
Two specimens of an unidentified tortricid moth were collected from two neighbouring localities during a field trip to southwestern Bulgaria in 2008. Based on the genitalia and wing pattern these specimens undoubtedly belong to *Epinotia*. However, no similar specimens were found after comparison with the type and non-type material deposited in the collection of the National Natural History Museum (Sofia, Bulgaria), Zoological Institute, Russian Academy of Sciences (St. Petersburg, Russia) and Zoological Museum of the Taras Shevchenko National University (Kiev, Ukraine). The moths show diagnostic differences from all species represented in these collections. In the main literature sources devoted to the Palaearctic Eucosmini (Kuznetzov 1978, 2001; Razowski 2003) no identical species could be found. On this basis, we consider these moths to belong to an undescribed species.

Methods

The moths were collected by attracting them to a "light tower" consisting of a 160-Watt mercury vapour lamp (type MBFT) and an 8-Watt black light tube suspended within a net cylinder. The genitalia were dissected using standard methodology (Robinson 1976) and embedded in Euparal in plastic containers attached to the speci-



Figs 1, 2. *Epinotia nigristriana* sp. n. **1.** Male (holotype). **2.** Female (paratype). Scale bar = 5 mm.



Figs 3, 4. Genitalia of *Epinotia nigristriana* sp. n. **3.** Male (holotype). **4.** Female (paratype).

mens (Zlatkov 2011). The type material will be deposited in the National Natural History Museum, Sofia (NMNH).

Epinotia nigristriana sp. n. (Figs 1–4)

Material. Holotype ♂, 'SW Bulgaria, Strouma Valley, | Kresna Gorge near Sheytan Dere (= Oshtavska) River, | 300 m, N 41°45.63′, E 023°09.29′, | 10.10.2008, at light, | leg. B. Zlatkov & O. Sivilov', 'BC SB Lep 0081', 'HOLOTYPUS | *Epinotia nigristriana* | det. Budashkin & Zlatkov, 2010' (NMNH). – Paratype: ♀, 'SW Bulgaria, Strouma Valley, | Roupite place near Petrich – | volcanic hill of Kozhuh, | 200 m, N 41°27.72′, E 023°15.50′, | 24.10.2008, at light, | leg. B. Zlatkov & O. Sivilov', 'BC SB Lep 0082', 'PARATYPUS | *Epinotia nigristriana* | det. Budashkin & Zlatkov, 2010' (NMNH).

Description. Adult (Figs 1, 2). Sexual dimorphism undetected. Forewing length in male 7.7 mm, in female 8.4 mm. Head, antennae, labial palpi and thorax grey. Forewing without costal fold, relatively wide, with prominent costal and external edges and with apex drawn to a point; upperside ground colour grey with clear brownish-ochreous tint; markings poorly defined; two blackish, relatively long and wide longitudinal streaks present, one extending from wing base for about 1/3 of forewing length and the second of subequal length and located in area of discal cell; an additional, equally ill-defined linear marking stretching from distal tip of

Fig. 5. Locus typicus in Kresna Gorge, 05.04.2009. The green trees are mostly *Juniperus excelsa* M. B.

discal cell to wing apex; large, round, black spot at apex; speculum poorly-defined, consisting of 4 or 5 thin, barely discernible horizontal lines; costal strigulae whitish-grey with silver lustre, pairs 1–3 poorly defined; a larger black line situated approximately at 1/4 length from base to apex. Cilia grey with some dirty-white sections and dirty-white basal line. Forewing underside pale brownish-grey with darker costa; five pairs of costal strigulae well defined. Hindwing upperside brownish-grey, more or less uniformly coloured, with hardly darker apical and terminal areas; overlapping area whitish; cilia brownish-grey with dirty-white basal line. Abdomen grey.

Male genitalia (Fig. 3). Uncus broad basally, with terminally rounded bifurcation. Tegumen trapezoidal, relatively narrow. Socii more or less wide-triangular, moderately long. Valva broadest at base, almost without incision of the lower edge, with long and narrow cucullus. Sacculus obtuse angled with well-developed, short, thorn-shaped setae on angle and well-developed lower angle. Aedeagus short, without cornuti in the vesica (no sockets were found).

Female genitalia (Fig. 4). Papillae anales membranous, relatively long and wide, covered with moderately long setae. Posterior and anterior apophyses comparatively long. Caudal edge of sternum VII faintly concave. Ostium bursae more or less semicircular, medium in width, situated at front edge of large semioval postvaginal plate. Antrum weakly sclerotised, cup shaped. Ductus bursae long and broad, membranous, with oblong sclerotised inclusion next to ductus seminalis opening. Corpus bursae membranous, without signa, but with large patch of tiny spines on dorsal surface.

Diagnosis. Externally, the new species is similar to some grey forms of the polymorphic *Epinotia nisella* (Clerck, 1759), but differs in the presence of black longitudinal and oblique (subterminal) streaks in the forewing pattern. The male genitalia of

Epinotia nigristriana sp. n. are similar to those of the Chinese *Epinotia abnormana* Kuznetzov, 1973 (Kuznetzov 1973: 683–684, fig. 3), but they have a much shallower incision on the lower edge of the valva (between the sacculus and the cucullus), a slenderer bifurcation of the uncus and smaller socii, and a much shorter aedeagus. The female genitalia of the new species are characterised by the absence of signa, and in this respect they resemble the Far Eastern *Epinotia coryli* Kuznetzov, 1970 (Kuznetzov 1970: 437–440, fig. 8). They differ from that species in having shorter anterior apophyses, a semicircular ostium, and no cingulum.

Etymology. The name *nigristriana* is derived from two Latin words: niger – black, and stria – line, band; it is based on the presence of black streaks on the forewings.

Habitat. Both localities are warm, dry, rocky habitats. The locality in Kresna Gorge (Fig. 5) is a sparse community of *Juniperus excelsa* M. B. (Cupressaceae) with other Mediterranean plants – *Phillyrea latifolia* L. (Oleaceae), *Pistacia terebinthus* L. (Anacardiaceae), *Quercus pubescens* Willd. (Fagaceae), *Paliurus spina-christi* Mill. (Rhamnaceae), *Juniperus oxycedrus* L. and *Carpinus orientalis* Mill. (Betulaceae) growing on crystalline schist. The other locality is a remnant of an extinct volcano consisting mainly of volcanic rocks but also marble in the highest northern parts. This habitat includes the same tree species (with the exception of *J. excelsa* M. B.), also *Jasminum fruticans* L. (Oleaceae), *Coronilla emerus* L. (Fabaceae), etc., but also has small open grassy areas.

Life history. Host plants of this species are unknown. Moths were collected on October 10 and 24.

Distribution. The species is known only from southwestern Bulgaria.

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